

**CUSTOMER ACCOUNTING INFORMATION
AND JORDANIAN SERVICE COMPANIES'
PERFORMANCE: EXAMINING THE ROLE
OF PERCEIVED ENVIRONMENTAL
UNCERTAINTY AS
A MODERATOR**

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A MODERATOR**

By

HAMZAH HUSSEIN KHALAF AL-MAWALI

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DEDICATION

This thesis, in one way or another, is a reflection and translation of prayers, doa, love, cares, sacrifices, inspiration, moral support, by most valued assets blessed by Allah Almighty. Thus, this special and humble dedication came sincerely from the bottom of my heart to these special persons.

To my beloved parents, may Allah Almighty prolong their life with health and wellness... Amen. May Allah give me the time and the power to recoup and repay to both of you.

To my brothers *Faris and Khalaf*, my beloved sisters, nieces and nephews who had made so much sacrifices, support and encouragement to me throughout my life, no words could precisely express and describe how grateful I am to be associated with all of you.

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LIST OF ABBREVIATIONS

| | |
|-------|--|
| ABC | Activity Based Costing System |
| AIS | Accounting Information System |
| ASE | Amman Stock Exchange |
| CA | Customer Accounting |
| CBJ | Central Bank of Jordan |
| CEA | Customers Equity Analysis |
| CFA | Competitor-Focused Accounting |
| CPA | Customer Profitability Analysis |
| CRM | Customer Relationship Management |
| EVA | Economic Value Added |
| FPM | Financial Performance Measurement |
| I T | Information Technology |
| LCPA | Lifetime Customer Profitability Analysis |
| MAS | Management Accounting Systems |
| NPAT | Net Profit after Tax |
| PEU | Perceived Environment Uncertainty |
| PMS | Performance Measurement Systems |
| ROA | Return on Assets |
| ROE | Return on Equity |
| ROI | Return on Investment |
| SMA | Strategic Management Accounting |
| VCA | Valuation of Customers as Assets |
| MAS | Management Accounting System |
| KMO | Kaiser-Meyer-Olkin |
| ANOVA | Analysis Of Variance |
| CRA | Customers Retention Analysis |

**MAKLUMAT PERAKAUNAN PELANGGAN DAN PRESTASI SYARIKAT
PERKHIDMATAN DI JORDAN: MENGKAJI PERSEPSI PERANAN
KETIDAKPASTIAN PERSEKITARAN SEBAGAI PEMBOLEHUBAH
PENCELAH**

ABSTRAK

Kajian meninjau takat penggunaan maklumat perakaunan pelanggan (CA) dan kesannya ke atas prestasi kewangan dan prestasi bukan kewangan syarikat-syarikat perkhidmatan di Jordan. Kajian ini terdorong oleh kekurangan perhatian empirik yang diberikan kepada perkara ini meskipun terdapat dakwaan tentang kepentingannya oleh penggalak-penggalak perakaunan pelanggan. Kajian ini akan menyokong cadangannya melalui empat objektif kajian. Pertama tujuannya ialah untuk menilai takat penggunaan maklumat perakaunan pelanggan dalam kalangan syarikat perkhidmatan Jordan. Objektif kedua ialah untuk menilai tahap prestasi syarikat melalui prestasi kewangan dan prestasi bukan kewangan mereka. Objektif ketiga ialah untuk menyiasat kesan penggunaan maklumat perakaunan pelanggan ke atas prestasi syarikat. Akhirnya, objektif terakhir ialah untuk menentukan kesan menyederhana persepsi ketidakpastian persekitaran ke atas hubungan langsung antara maklumat perakaunan pelanggan dan prestasi syarikat. Untuk menjawab persoalan kajian ini, kajian ini telah mengumpul data menggunakan keadah campuran dalam dua fasa. Dalam fasa pertama, 106 soal selidik yang boleh digunakan telah diterima daripada 172 yang telah dikirimkan kepada pengurus syarikat perkhidmatan. Keputusan yang diperolehi daripada data kuantitatif menunjukkan bahawa syarikat perkhidmatan di Jordan telah menggunakan maklumat perakaunan pelanggan dari aras yang sederhana hingga aras gang tinggi. Analisis statistik menunjukkan bahawa tahap prestasi syarikat berada antara tahap sederhana hingga tinggi. Keputusan menunjukkan bahawa takat penggunaan

maklumat pelanggan oleh syarikat mempengaruhi dengan signifikan ke atas prestasi organisasi. Akhirnya, kajian ini telah menemui bukti yang menunjukkan kesan menyederhana persepsi ketidakpastian persekitaran ke atas hubungan antara maklumat perakaunan pelanggan dan prestasi organisasi. Fasa kedua kajian ini bertujuan untuk mengesahkan keputusan kuantitatif melalui tujuh temu duga separa-struktur. Keputusan daripada temuduga tersebut mengesahkan dan memperakui keputusan yang diperolehi melalui analisis kuantitatif yang dilakukan dalam fasa pertama kajian ini. Kajian ini telah mendedahkan tujuh perkembangan yang ketara berhubung dengan perakaunan pelanggan, persepsi ketidakpastian persekitaran, dan prestasi syarikat. Keputusan kajian ini mengimplikasikan bahawa prestasi syarikat perkhidmatan Jordan telah dapat ditingkatkan apabila mereka menggunakan maklumat perakaunan pelanggan secara ekstensif bagi tujuan membuat keputusan strategik, di bawah keadaan ketidakpastian persekitaran yang tinggi.

**CUSTOMERS ACCOUNTING INFORMATION AND JORDANIAN
SERVICE COMPANIES' PERFORMANCE: EXAMINING THE ROLE OF
PERCEIVED ENVIRONMENTAL UNCERTAINTY
AS A MODERATOR**

ABSTRACT

This study investigated Customer Accounting (CA) information usage and its impact on the performance of services companies operating in Jordan. It was motivated by the scarcity of the empirical attention given to the subject despite the claimed importance placed by CA promoters. This study sought to substantiate its proposition through four research objectives. First, it aimed to evaluate the extent of CA information usage. The second objective was to identify the level of companies' performance. The third objective was to investigate the impact of CA information usage on the companies' performance. The last objective was to determine the moderating effect of perceived environmental uncertainty (PEU) on the relationship between CA information and companies' performance. Based on contingency theory, this study developed the theoretical framework by applying interaction fit. To answer the research questions, the study designed as sequential explanatory study and the data collected in two phases. In the first phase, 106 usable questionnaires were received out of the 172 distributed to managers. The results from the quantitative data, indicated that services companies in Jordan have used CA information ranging from moderate to high extent, and the level of companies' performance ranged between average to high. The results indicated that CA information usage had significantly influenced the organizational performance, also found evidences showing the moderating effect of PEU on the relationship between CA information and organizational performance. The second phase was aimed at validating the quantitative results by seven semistructured interviews. The results from the

interviews confirmed and explained the results obtained from the quantitative analysis done in the first phase. The study has revealed several notable developments with regard to CA, PEU, and companies' performance. The results implied that Jordanian services companies' performance were enhanced when they make extensive use of CA information for strategic decisions, under high PEU.

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter briefly presents the general focus of this study. It starts with the background of the study and highlights the problem statement. Research questions and research objectives are also presented. After that, the expected theoretical and practical contributions are shown. Finally, the definitions of the study's variables, scope of the study, and organization of the thesis are presented at the end of the chapter.

1.1 Background of the Study

The services sector plays an important role in the economic development of any country. It has been internationally accepted that the services sector contributes up to 20% of the global economy, and specifically in Jordan, the ratio of the profits from the services sector amounted to 72% of the Jordanian market in 2008 (Amman Stock Exchange Report, 2008).

The Jordanian services sector has seen many developments that put it equally with those of the developed countries (Miani & Daradkah, 2008). This sector is considered as the most important sector that supports the gross domestic product (GDP). Compared with other economic sectors, such as manufacturing industry and agriculture, it has contributed more than 65% to GDP in 2009 (see Table 1.1). Furthermore, more than 79% of the Jordanian labour force is working under the services sector, while less than 25% of labour force is working under other sectors such as manufacturing industry and agriculture.

Table 1.1

Gross Domestic Product and Labour Force by Sectors

| Sector | GDP (%) | Labour Force (%) |
|------------------------------------|--------------------|-----------------------------|
| Services Sector | 67.4 | 79.2 |
| Manufacturing Sector | 27.3 | 17.1 |
| Others Sectors (e.g., Agriculture) | 5.3 | 3.7 |

Source: Amman Stock Exchange Report, 2009

Notwithstanding the benefits to the Jordanian economy of the services sector, social welfare and the critical improvement in the Jordanian services industry, a decline in the performance of services sector was observed over the years 2005-2010, according to the Amman Stock Exchange Reports (2005-2010). The performance measures of return on assets (ROA) and return on equity (ROE) showed that ROA dropped from 6.7% in 2005, to 5.6%, 5.4%, and 5.8% in 2008, 2009 and 2010 respectively. A decline was also noted in ROE, from 11.4% in 2005, down to as low as 6.9% in 2006, with a small recovery in 2010 to 9.4% (see Table 1.2).

Table 1.2

Performance Indicators of Jordanian Sectors during the Years, 2005-2010

| | | 2005 (%) | 2006 (%) | 2007 (%) | 2008 (%) | 2009 (%) | 2010 (%) |
|-------------------|-----|-------------|-------------|-------------|-------------|-------------|-------------|
| Services Sector | ROA | 6.7 | 4.5 | 4.9 | 5.6 | 5.4 | 5.8 |
| | ROE | 11.4 | 6.9 | 7.9 | 9.6 | 9.1 | 9.4 |
| Industrial Sector | ROA | 7.3 | 8.0 | 11.4 | 17.8 | 17.3 | 17.1 |
| | ROE | 9.7 | 10.3 | 16.4 | 26.6 | 25.9 | 25.8 |

Source: Amman Stock Exchange Reports, 2005- 2010

In line with the previous indicators, net income of the Jordanian services sector also declined. In 2005, its net income amounted to 1017 JD Million but dropped to 885 JD Million in 2009 (Table 1.3). The performance indicators show that the services sector has not been doing well compared with other sectors (see Table 1.2 and Table 1.3).

Table 1.3

Net Income of Jordanian Sectors during the Years 2005-2009 (Million JD)

| Sector | 2005 | 2006 | 2007 | 2008 | 2009 |
|-------------------|-------------|-------------|-------------|-------------|-------------|
| Services Sector | 1017 | 743 | 931 | 897 | 885 |
| Industrial Sector | 189 | 157 | 306 | 578 | 568 |
| All Sectors | 1208 | 901 | 1238 | 1477 | 1453 |

Source: Amman Stock Exchange Reports, 2005-2009

Increasing local and global competition, globalisation, technological advancements and increasingly demanding customers, have all contributed to environmental uncertainty within the services industry and have modified the characteristics of competition in the wide world (Atkinson & Brown, 2001; Harris & Mongiello, 2001), in particular, in the Jordanian marketplace (Dwairi, Bhuian, & Jurkus, 2007). For example, in the last two years, three new banks have been established in Jordan. However, under such a progressively competitive environment, Jordanian services companies need to strive to remain competitive and to achieve better performance. Therefore, services companies should be able to generate and utilise more strategic information regarding the external and future events to support and update their business strategy and accomplish higher levels of organizational performance (Jermias & Gani, 2004; Johnson & Kaplan, 1987; Kaplan, 1983; Langfield-Smith, 1997).

In a more theoretical vein, the fundamental assumption in contingent-based accounting studies is that superior organizational performance depends on the fit or match between accounting information systems (AIS) and other contingent factors (such as environmental uncertainty, business strategy, firm size, etc.). Accounting information as output of accounting system, especially management accounting information, significantly contributes to the effective functioning of management process. The essence of such functioning centres decision-making is planning, organizing, directing, and controlling. To meet this need, management accounting system provides management with information that focuses on decision making (Horngren, 2004).

Organizations use management accounting information in a variety of ways. Belkaoui (1980) characterized four usage types, namely to help management planning, to facilitate organizational problem solving, to aid the examination of control functions, and to facilitate operational systems management. Other authors have classified these four types into two usage streams, namely to evaluate managerial performance and to assist managers in making decisions (Tiessen & Waterhouse, 1983). The current study focused on the second type (a detailed review of this assumption is presented in section 3.5).

However, management accounting systems have long been recognised as an integral component of organizations' information systems (IS) and as one of the most essential sources of management information in all types of industries (Chenhall & Morris, 1986; Hopwood, 1972). Management accounting systems as a part of an organization's management control system, monitors organizational performance by providing useful information for management planning and control (Kaplan, 1983), or to aid managers in positioning their organization in a competitive market (Mia &

Clarke, 1999).

When a company faces increasing and tight environmental uncertainty, management frequently reviews the company's goals and strategies to cope with external as well as internal changes. For that reason, management needs an effective management accounting system. The objective of designing management accounting system in such a situation is to help the company achieve its goals. There is a continuum of management accounting system designs ranging from the traditional to the sophisticated control system. As a result, a higher level of sophistication of management accounting system is expected to improve organizational performance.

Furthermore, management accounting information contributes to the organization's performance by providing feedback on the implementation of strategic plans and completion of jobs. Specifically, appropriate management accounting systems MAS can help managers be aware of and address organizational expectations: customers' needs, competitive markets, or internal organizational goals (Mia & Patiar, 2001). In addition, ex-ante information can assist in meeting organizational challenges resulting from competing market faced by the organization and supports its value-added efforts relative to its competitors (Bromwich, 1990).

The existing literature shows that the usage of broad scope MAS information helps managers in reducing high levels of job complexity and uncertainty, and leads to successful decisions (Ferris & Haskins, 1988; Mia, 1993). This is because extensive use of broad scope MAS provides managers with multiple options to manage their business, resulting in a dramatic improvement in managers' understanding of their and organizational performance (Baines & Langfield-Smith, 2003; Ferris & Haskins, 1988; L. A. Gordon & V. K. Narayanan, 1984; Mia, 1993).

Studies in the manufacturing industry found empirical evidence that supports the positive relationship between managers' use of the conventional management accounting information and organizational performance (Chong & Chong, 1997; Mia & Clarke, 1999). This empirical evidence present in the manufacturing industry may not be relevant in the services sectors (Mia & Patiar, 2001). Also, conventional management accounting information has become under strong criticism by scholars and practitioners (Cooper & Kaplan, 1988; Drury, 2007) as being internally rather externally focused, ex-post oriented (related to past events) rather than ex-ante (related to future events), financially oriented, and according to Wilson (1995), emphasizes short-term goals.

Even though conventional management accounting systems provide important information to decision makers, they frequently fail to report relevant, useful, and timely information that creates the components of competitive advantage as well as supports business strategy (Simmonds, 1981). Increasingly they have been unable to provide useful information to address a current competitive environment. Conventional management accounting systems are not sufficient to maintain services companies' long-term competitiveness (Drury, 2007; Mia & Patiar, 2001). Ward (1993) argued that, however, MAS must add an external focus such as customers' perceptions of value in addition to the traditional inward emphasis of the accounting analysis, planning, and control.

The situation with conventional management accounting promoted management accounting researchers to introduce strategic management accounting (SMA), to overcome the inability of conventional management accounting to provide the long-term orientation, external, and ex-ante information (Cadez & Guilding, 2008; Guilding, Cravens, & Tayles, 2000; Roslender & Hart, 2003). The

characteristics of SMA overcome the failings of conventional management accounting systems by providing the appropriate information for today's contemporary business environment to get competitive advantages (Roslender & Hart, 2002). Thus, SMA enhancement to the traditional and internal-oriented approaches of MAS is necessary to meet the special needs of contemporary business management, especially on strategy implementation and execution.

Despite many authors showing intense interest in SMA overcoming the weaknesses in conventional management accounting systems (Cadez & Guilding, 2008; Guilding, et al., 2000; Roslender & Hart, 2003), there remain many neglected issues in the SMA literature. There are too few empirical studies on SMA that demonstrated its efficacy (Cadez & Guilding, 2008; Cinquini & Tenucci, 2010). Several studies have measured SMA techniques by using one signal item (question) in the questionnaire for each technique (Cadez, 2006; Cadez & Guilding, 2008; Guilding, 1999; Guilding & McManus, 2002; Malmi, Raulas, Gudergan, & Sehm, 2004), and such methods tend to increase the possibility of bias (McManus & Guilding, 2008).

Previous studies indicated that organizations have focused more on collecting and storing management information rather than focussing on the actual usage of the information itself (Day, 2003; Zahay & Griffin, 2004). The current study has followed the new stream of research in management accounting which are now directed towards examining the extent of accounting information usage rather than the mere collection of information (Chong & Eggleton, 2003; Mia & Winata, 2008).

Furthermore, the majority of previous studies did not give sufficient attention to nonfinancial indicators, but focused on financial performance or overall

performance, a practice widely criticised due to its internal and historical focus, which is more likely to be manipulated by managers (Hoque, Mia, & Alam, 2001; Johnson & Kaplan, 1987). Those financial measurements are considered as not to give a clear picture of an organization's performance, unless it is coupled with nonfinancial indicators (Chenhall & Langfield-Smith, 2007; Kaplan, 1984). In addition, a few empirical studies that examined the relationship between SMA and organizational performance provided mixed and inconsistent results (Cadez & Guilding, 2008; Malmi, et al., 2004; O'Connor & Cheung, 2007).

As researchers efforts on the relationship between management accounting information and organizational performance have provided inconclusive outputs there is likelihood that a third variable may affect the relationship, contributing to the mixed results. According to Frazier, Tix, and Barron (2004) moderators can be established when previous studies show weak or inconsistent relationship between an independent variable and the dependent variable, whereas mediators can explain how or why an independent variable affects a dependent variable, especially when an empirical study shows the relationship between an independent variable and the dependent variable is positive.

Testing this assertion, subsequent studies by Agbejule (2005), Prescott (1986) and Chong, Eggleton, and Leong (2005) attempted to reconcile the conflicting results in the related areas by using contingency theory. Contingency-based accounting studies provide some evidence for the moderating effect of perceived environmental uncertainty (PEU), which was considered as the most important factor employed in the contingency theory (Mintzberg, 1979), on the relationship between management accounting information and organizational performance (Ajibolade, Arowomole, & Ojikutu, 2010; Gul & Chia, 1994; Gul, Glen, & Huang, 1992; Hoque, 2005; Seaman

& Williams, 2011).

Previous studies also indicated that under low environmental uncertainty, managers established routines and work structures that can be sufficiently managed with the help of limited or ex-post information. Several researchers argued that even under relatively low PEU, managers who make extensive use of ex-ante information are more likely to end up in information overload, so this information may be dysfunctional and adversely affect their organizational performance (Gerloff, 1985; Gul, 1991), or otherwise it may have a negative impact on the organization's performance (Agbejule, 2005).

However, some studies found that in conditions of low PEU, managers are able to make relatively accurate predictions about the market (Gul & Chia, 1994), apply programmed rules, procedures and standards to particular jobs (Gul, et al., 1992; Tushman & Nadler, 1978). Since future and external events are predictable, there is little or no need for sophisticated management accounting information for strategic purposes (such as customers accounting information) to maintain business performance (Agbejule, 2005).

Uncertainty does not remain constant however, as organizations face different levels of uncertainty in their external environment (such as customers, competitors, and technology) (Galbraith, 1973), and under such conditions managers require additional ex-ante information for strategic purposes to maintain their organizations' performance. Other authors also confirmed that in an unstable environment, ex-ante information has been used extensively to support their strategy and improve organizational performance (Mia & Patiar, 2001; Olsen, Murthy, & Teare, 1994). To extend this assertion, Gul, Glen, and Huang (1992) found that when PEU is high,

managers need sophisticated management accounting information to cope with the unpredictable events and improve organizational performance. Empirical evidence from the previous studies indicated that PEU had moderating effect on the relationship between MAS and organizational performance, in that under low levels of PEU there was a negative relationship between MAS and performance, whereas high levels of PEU generated a positive relationship (Ajibolade, et al., 2010; Gul, 1991; Gul, et al., 1992; Seaman & Williams, 2011). Furthermore, Emmanuel and Otley (1995) argued that the usage of post-ante information tended to make a significant contribution to the improvement of performance when environmental conditions are stable and can be predicted early.

SMA has many specialist categories, such as competitor accounting, strategic decision-making and strategic costing (Cadez & Guilding, 2008), and each of these categories play an important role in providing useful information for strategic purposes (Raman, Yuserrie, & Michael, 2009). However, the current study addressed SMA from a different perspective by emphasising the Customers Accounting (CA) dimensions based on the following reasons. First, CA has received less attention in the SMA literature. Second, several studies have used the term of *external* focus, which is the basis of SMA characteristics, to refer to the customers (McManus, 2011; Roslender & Hart, 2003; J. K. Shank & V. Govindarajan, 1993) more details will be provided on this (in section 3.2.1 of Chapter 3). Third, CA is the most important information source in a people-oriented industry such as the services sector (Cadez, 2006).

CA considered as an interesting topic for both, practice as well as academia. Although there are many studies have called for research in this area (Foster & Young, 1997; McManus & Guilding, 2008), the research achievements with regards

to CA maintain to be negligible. This study can also be considered as response to calls for further research into the interface between marketing with management accounting system, within strategic management framework. Specifically, this research will provide services companies in Jordan with CA information to classify customers based on their profitability to the company. Companies then will be able to update their business strategy to maintain profitable customers. This classification also allow companies to deal with the less or non-profitable customers by offering them new services. Companies can redesign their services, based on CA information, to meet their customers' expectation and needs then enhance customers satisfaction.

Therefore, in the current study, CA was reconceptualised to have four dimensions: customer profitability analysis, lifetime customer profitability analysis, valuation of customer as assets, and customer equity analysis. These items are expected to serve the organizations' information requirements to support strategic decisions and maintain superior organizational performance under high environmental uncertainty in the services sector.

The central argument in the current study is that CA information usage is more likely to favourably lead to higher organizational performance in situations of higher environmental uncertainty. This is because CA is likely to provide information for strategic purposes based on customers' actions. Accordingly, the current study anticipated that PEU would moderate the relationship between information usage from CA and organizational performance.

Following these discussions, the aim of the current study was to contribute to the body of accounting knowledge related to the progress of SMA information expansion from the perspective of developing countries, and Jordan in particular.

Specifically, the study focused on the extent to which CA information was used to focus on customers in Jordanian services companies, and investigated the moderating effect of PEU on the relationship between the level of CA information usage and organizational performance.

1.2 Research Problem

Based on the discussions in the previous section and the literature review, it appears that there has been increasing interest in strategic management accounting, motivated by criticisms on the conventional management accounting practices (Drury, 2007; Johnson & Kaplan, 1987; Kaplan, 1983, 1984).

Although, there is an ever growing body of SMA literature in general and CA particularly, there is still a lack of agreement on the exact definition of CA, how to measure it, and which techniques should be included as specific CA techniques for the services sector (Bromwich, 1990; Bromwich & Bhimani, 1994; Cadez & Guilding, 2008; R. Chenhall & Smith, 2011; Coad, 1996; Cravens & Guilding, 2001; Guilding, et al., 2000; Hoque & James, 2000; Lord, 1996; McManus, 2011; McManus & Guilding, 2008; Roslender, 1995; Roslender & Hart, 2003; Simmonds, 1981).

Scholars in the field of accounting have acknowledged that SMA provides the analysis of external and future-looking information about the business and its environment, competitors (Guilding, Kennedy, & McManus, 2001; Simmonds, 1981), and customers (Guilding & McManus, 2002; J. Shank & V. Govindarajan, 1993). This information items assist strategic decision makers to effectively monitor and develop business strategies (Bromwich, 1990; McManus, 2011; Roslender &

Hart, 2003; Ward, 1992), which ultimately, help organizations to achieve competitive advantage for better organizational performance.

While, there is a growing interest to introduce SMA as the new management accounting system due to its strategic characteristics (i.e., externally and future-oriented) that may overcome many of the weaknesses of conventional management accounting systems, it still lacks a solid base of empirical studies (Cadez & Guilding, 2008; R. Chenhall & Smith, 2011). In addition, some empirical studies that tested the relationship between SMA and companies' performance showed mixed results and rendering this relationship still ambiguous (Agbejule, 2005; Cadez & Guilding, 2008; Hoque, 2005; Malmi, et al., 2004; O'Connor & Cheung, 2007).

The literature provided some evidence to support a positive association between SMA information usage and organizational performance under high perceived environmental uncertainty (PEU). Conversely, under conditions of low PEU, there is no relationship found, or there might even be a negative relationship between management accounting information and organizational performance (Gul, 1991; Gul, et al., 1992; Seaman & Williams, 2011). These works suggested that the relationship between management accounting information and organizational performance is dependent upon the degree of environmental uncertainty in which the organization operates (Chong & Chong, 1997; Gul, et al., 1992; Hoque, 2005; Mia, 1993; Seaman & Williams, 2011). Even though the external environment is considered a dominant variable, and is the foundation of contingency-based management accounting research (R. H. Chenhall, 2003), no studies have investigated the moderating effect of PEU on the relationship between CA information and organizational performance.

In Jordanian context, no studies have explored the characteristics of SMA information in general and CA information specifically, or the effect of usage of such information on companies' performance in the Jordanian services sector. Thus, this study attempts to address this gap by exploring the usage characteristics of SMA, particularly CA information, in the Jordanian context, as well as examining the relationship between the usage level of CA information and performance (financial and nonfinancial indicators) of companies in Jordanian services sector. In addition, the current study aimed to investigate PEU as moderator for the relationship between CA information usage and organizations performance (financial and nonfinancial indicators).

To summarise, the current study addresses the following problems: Can the use of CA information enhance the financial and nonfinancial performance of Jordanian services companies? Does PEU moderate the relationship between CA information usage and organizational performance?

1.3 Research Questions

Guided by the problem statement, this study attempts to test the relationship between CA information and the performance of companies in the Jordanian services sector, and addresses the following questions:

1. What is the level of CA information usage in Jordanian services companies?
2. What is the level of performance (financial and nonfinancial) in Jordanian services companies?
3. What is the relationship between the level of CA information usage and

companies performance (financial and nonfinancial)?

4. Does perceived environment uncertainty play a role in moderating the relationship between the level of usage of CA information and companies' performance (financial and nonfinancial)?

1.4 Research Objectives

Based on the research questions, the current study has set the following objectives:

1. To identify the level of CA information usage in Jordanian services companies.
2. To identify the level of performance (financial and nonfinancial) of Jordanian services companies.
3. To examine the relationship between the level of CA information usage and performance (financial and nonfinancial) of Jordanian services companies.
4. To examine the role of perceived environment uncertainty as the moderator in the relationship between the level of CA information usage and performance (financial and nonfinancial) of Jordanian services companies.

1.5 Significance of the Study

This study seeks to add to the body of accounting knowledge from theoretical and practical perspectives, and the specific expected contributions for researchers and managers from the study are shown in the next two subsections.

1.5.1 Theoretical Contribution

This study has the following theoretical contributions. First, this study expands the existing SMA literature, particularly in CA by reconceptualising CA as a four-dimension construct, composed of customer profitability analysis, lifetime customer profitability analysis, valuation of customers as assets, and customer equity analysis. This represents advancement over previous studies that investigated only three dimensions of CA: customer profitability analysis, lifetime customer profitability analysis, and valuation of customers as assets. Therefore, this study enriches the body of SMA knowledge in general and CA specifically by investigating one more dimension from marketing literature, customer equity analysis (Blattberg, Getz, & Thomas, 2001).

Second, the current study addresses the weaknesses in previous CA studies, where each of the CA practices was measured by a single question (Cadez & Guilding, 2008; Guilding, et al., 2001; Guilding & McManus, 2002). According to McManus and Guilding (2008), stronger research design would result if a way could be found to measure each CA construct using multiple items, which overcomes the bias that typically occurs when using a single item; so the current study attempts to validate measurements of multiple items for each dimension of CA.

Third, the current study provides information to evaluate companies' performance by using financial and nonfinancial performance measurement indicators, whereas previous studies gave more attention on financial indicators or overall performance especially in Jordan. Fourth, this study examines the relationship between level of CA information usage (not techniques) and organizational performance in the context of Jordan, whereas previous studies have

focused more on the relationship between SMA techniques and organizational performance.

Fifth, the study, for the first time, introduces perceived environment uncertainty as a moderator and examines the moderating effect on the association between SMA, particularly CA, and financial and nonfinancial performance.

Sixth, the current study contributes to accounting contingency-based research by testing the contingency theory framework, which assumes that no one universal management accounting system can be applied equally well to all organizations but the characteristics of AIS (the information which comes from the management accounting system) are dependent on specific circumstances (Otley, 1980). However, previous studies widely applied the first level of contingency theory, which considered the contingent factors (such as environmental uncertainty) as drivers for AIS, without examining the joint effect of AIS with a contingent factor on organizational performance. The current study distinguishes itself from previous studies and contributes to the contingency theory studies by applying more sophisticated contingency framework (the second level), which assumes that superior organizational performance depends on the fit (interaction) between AIS and the environment (Seaman & Williams, 2011).

Finally, while previous empirical SMA studies predominately focused on manufacturing industries (Cadez, 2002; Cravens & Guilding, 2001; Guilding, et al., 2000), the present study adds to the existing literature on CA, and SMA in general, by identifying the extent of CA information usage in services sector in developing countries.

1.5.2 Practical Contribution

This study makes the following practical contributions. First, this study looks at the significance of SMA and CA, advancing managers' understanding of the importance of customer-related external information, ability to track profitable customers and improve their relationship or to develop strategies to turn unprofitable customers into profitable ones. Additionally, this study explores the availability of CA information.

Second, this study provides the decision makers in Jordanian services companies with a method to determine financial and nonfinancial performance.

Third, since this is the first empirical study to examine the relationship between CA information and organizational performance in the Jordanian context, the current study shows the effect of CA information on financial and nonfinancial performance. In addition, this study helps managers to identify differences in the environment in the services sector.

1.6 Definition of Variables

This section defines the variables of the study, which include strategic management accounting, customer accounting, organizational performance, and perceived environment uncertainty.

1.6.1 Strategic Management Accounting

Strategic Management Accounting (SMA) is defined as a generic approach to accounting for strategic positioning, defined by an attempt to integrate insights from management accounting and marketing management within a strategic management

framework (Roslender & Hart, 2003).

1.6.2 Customer Accounting

Customer Accounting (CA) refers to the level of the usage of external accounting information relative to the customers, namely customer profitability analysis, lifetime customer profitability analysis, valuation of customers as assets, and customer equity analysis for strategic decision purposes (Guilding & McManus, 2002; McManus & Guilding, 2008). CA provides the following information items that are briefly defined as follows:

1.6.2.1 Customer Profitability Analysis

Customer profitability analysis (CPA) refers to the level of the usage of information regarding the revenues, costs, and profitability of individual customer or customers groups over a one period (Guilding & McManus, 2002; McManus & Guilding, 2008).

1.6.2.2 Lifetime Customer Profitability Analysis

Lifetime customer profitability analysis (LCPA) refers to the level of the usage of information regarding the future potential revenues, costs, and profitability of individual customer or customers groups over all the relationship with the customer or customers groups (Guilding & McManus, 2002; McManus & Guilding, 2008).

1.6.2.3 Valuation of Customers as Assets

Valuation of customers as Assets (VCA) refers to the level of the usage of information regarding the future cash flows that may be yielded from individual customer or customers groups (Guilding & McManus, 2002).

1.6.2.4 Customer Equity Analysis

Customer equity analysis (CEA) refers to the level of the usage of the information regarding customer acquisition, retention, and cross-selling (Blattberg, et al., 2001).

1.6.3 Organizational Performance

Performance in this study refers to the level of company performance, including financial and nonfinancial performance, relative to their major competitor over the last three years (Chenhall & Langfield-Smith, 2007; Hoque & James, 2000; Mia & Clarke, 1999). The current study conceptualised financial and nonfinancial performance as follows:

1.6.3.1 Financial Performance

The financial performance refers to the level of companies' financial performance relative to their major competitors over the last three years, the present study uses the following financial performance indicators: ROI, ROE, sales growth, and operating profit (Hoque & James, 2000; Mia & Clarke, 1999).

1.6.3.2 Nonfinancial Performance

Nonfinancial performance in the present study refers to the level of companies' nonfinancial performance relative to their major competitors over the last three years. The current study uses the following nonfinancial performance indicators: customer satisfaction rate, customer complains, and market share (Hoque & James, 2000).

1.6.4 Perceived Environmental Uncertainty

In the current study, perceived environmental uncertainty is defined as managers' perceptions about the predictability in various aspects of their

organization's customer, competitive, and technological environments (L. A. Gordon & V. K. Narayanan, 1984). Perceived environment uncertainty includes the elements listed as follows.

1.6.4.1 Perceived Customer Uncertainty

Perceived customer uncertainty is defined as managers' perceptions about the predictability regarding the change of the composition of customers and their preferences, need and tastes (Gordon & Narayanan, 1984).

1.6.4.2 Perceived Competitive Uncertainty

Perceived competitive uncertainty is defined as managers' perceptions about the predictability regarding the degree of competition in an industry sector (Gordon & Narayanan, 1984).

1.6.4.3 Perceived Technologies Uncertainty

Perceived technologies uncertainty is defined as managers' perceptions about the predictability regarding the technological change (Gordon & Narayanan, 1984).

1.7 Scope of the Study

The strategic management accounting technique covers five main information groups, including (1) costing, (2) planning control and performance measurement, (3) strategic decision making, (4) competitor accounting and, (5) customer accounting (Cadez & Guilding, 2008). According to Cadez (2006), customer accounting techniques are most widely used in the services industries. Consequently, this study focused on the customer accounting (CA), where CA refers to the following dimensions: (1) Customer profitability analysis, (2) lifetime customer profitability analysis and (3) valuation of customers as assets (Guilding & McManus,

2002) and (4) customer equity analysis. In addition, this study assessed Jordanian services companies that are listed in Amman Stock Exchange.

1.8 Organization of Thesis

This study is divided into eight chapters, with Chapter 1 introducing the background of the study, problem statement, research questions, research objectives, and the significance of the study. The remaining chapters of this study are organised in the following manner.

Chapter 2 provides general background of the Hashemite Kingdom of Jordan and the Jordanian services sector. Chapter 3 reviews the relevant literature on organizational performance, SMA in general, customer accounting, perceived environmental uncertainty and contingency theory. Chapter 4 presents the theoretical framework and develops the hypotheses.

Chapter 5 covers the research methodology, and explains how the research was carried out to obtain data, to test the hypotheses, research design, sampling, data collection procedures including both quantitative and qualitative, questionnaire design, measurement of the study variables, and statistical techniques used to test the hypotheses.

Chapter 6 presents the empirical results and analyses of the quantitative data. Chapter 7 discusses the confirmatory study findings from the semi-structure interviews. Chapter 8 discusses the results of the findings and explains their limitations. In addition, this chapter also provides suggestions for future research as well as conclusions.

CHAPTER 2

JORDAN AND JORDANIAN SERVICES SECTOR

2.0 Introduction

This chapter presents the general description of Jordan and its industrial sectors. It begins with describing the geography of Jordan and the Jordanian economy. Next, Jordanian industries sectors will be presented, followed by a brief explanation of the accounting profession in Jordan. Finally, the Jordanian business environment is described at the end of this chapter.

2.1 Geography of Jordan

Jordan (Arabic: الأردنّ al-'Urdunn), formally the Hashemite Kingdom of Jordan, is an Arab country in Southwest Asia, located in the heart of the Middle East, at the meeting point of Asia, Africa, and Europe. Jordan has a total area of 88,778 km² (Department of Statistics, 2010) having geographic coordinates: 29 - 34 00 N, 35 - 39 E (Royal Jordanian Geographic Centre, 2010). The capital city is Amman, which is located in the north-west. In 2011, the Jordanian population was 6,170,378 (Department of Statistics, 2011). The Hashemite Kingdom of Jordan spans northwest of Saudi Arabia, south of Syria, southwest of Iraq, and east of the west bank. Jordan has access to the Red Sea via the port city of Aqaba, located at the northern end of the Gulf of Aqaba (Royal Jordanian Geographic Centre, 2010). In addition, Jordan shares control of the Dead Sea with Palestine, and the coastline of the Gulf of Aqaba with Palestine, Saudi Arabia, and Egypt. Much of Jordan is covered by desert, particularly the Arabian Desert. Nevertheless, the north-western area and the Jordan River are regarded as part of the Fertile Crescent.

Jordan has a combination of Mediterranean and arid desert climates, with Mediterranean climate prevailing in the north and west of the country, while the majority of the country is desert. Generally, the country has warm, dry summers and mild, wet winters, with annual average temperatures ranging from 12 to 25 °C and summertime highs reaching the 40 °C in the desert regions. Rainfall averages vary from 50 mm annually in the desert to as much as 800 mm in the northern hills, some of which falls as snow (Ministry of Tourism of Jordan, 2010).

However, the kingdom of Jordan constitutes three main regions, namely central region, north region, and south region; each region includes four governorates making twelve in total. The largest region is the central region followed by the north region, and then the south. It is worth mentioning that 38.8% of Jordan population lives in the capital city Amman, one of the largest governorates in the central region (Department of Statistic, 2008). The twelve governorates have different characteristics. For example, in Amman (the capital city), Irbid, and Zarqa are citizens who are highly educated, and their socioeconomic status is different from that of the other governorates.

2.2 The Jordanian Economy

Jordan is a small, low-middle income country of with a population of 6 million people, with an anticipated average population growth rate of 2.1% for 2000-2015. The Jordan economy is an open economy, but highly dependent on services and remittances from Jordanian workforce working abroad, especially in the Arabian Gulf countries. It is not an oil-based economy (El-Sakka, 2005). For example, according to the Central Bank of Jordan's Report (2010), last year (2009), remittances from Jordanians working overseas rose by 1.2% to JD2.584 billion

(USD3.6 billion). According the Wikipedia free encyclopaedia, water and other natural resources are insufficient. The monetary strategy is formally geared in the direction of inflation targeting, although maintaining the exchange rate peg is probably the over-riding objective. The Jordanian dinar is effectively pegged to the dollar ($\text{USD}1 \approx 0.709 \text{ JD}$). This policy has played an important role in attracting foreign capital in recent years (Ministry of Finance of Jordan, 2010).

In 2007, the Jordanian economy continued to grow with its Gross Domestic Product (GDP) growing more than 6%, even though this was a little lower than the 6.3% growth registered in 2006. This was due, in part, to the continued efforts by the Jordanian government to open the economy, control public debt, boost Foreign Direct Investment (FDI), and increase privatization. Growth continued during 2008, although at a slower rate. GDP, at both constant and current market prices, grew by 6.7%, compared with 7.4% in the previous year. The growth was guided by strong development in the services sectors, with continuous gains on the overall productivity. Buoyant FDI and investment in equity markets, superior grants, and a great increase in unidentified inflows improved global reserves, and the stock market indicator achieved a new high (Ministry of Finance of Jordan, 2010).

However, during 2008, Jordan's economy faced several challenges related to increasing inflation and the effects of the global financial crisis. In February 2008, Jordan increased most of its oil subsidies, and within three months, multiple price increases pushed oil price up by about 100%; nevertheless, they have since dropped, in sequence with global prices. In addition, the prices of food and fundamental commodities surged in the 2008. Declining oil and goods prices, caused by the downward fall in universal demand, were the most important factors behind the